

Applicants: Christine L. Brakel, *et al.*
Serial No.: 08/479,999
Filed: June 28, 1994
Page 2 (Amendment Under 37 C.F.R. § 1.111 in Response to
January 4, 1999 Office Action - November 19, 1999)

This Response is accompanied by a Petition To Revive An Unintentionally Abandoned Application Under 37 C.F.R. § 1.137(b) and authorization for the fee therefor. Accordingly, with the expected granting of the Petition, this Amendment will be considered as having been timely filed.

AMENDMENTS

Please amend the subject application as set forth below.

In the Claims

Kindly amend claims 1, 21, 41, 42, 50, and 51 to read as follows:

1. (Thrice Amended) A modified nucleotide compound which includes at least one component selected from the group consisting of MN_3M , $[N(N)_xM]$ and $M(N)_xB]$

$(N)_xM(N)_y$, $(N)_xM(N)_yM$, $B(N)_xM(N)_y$ and $(N)_xM(N)_yB$ wherein:

N is a phosphodiester-linked modified or unmodified 2'-deoxynucleoside moiety; provided that at least one N is a phosphodiester-linked unmodified 2' deoxynucleoside moiety;

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M is a moiety that confers endonuclease resistance on said component and
that contains at least one modified or unmodified nucleic acid base;

B is a moiety that confers exonuclease resistance to the terminus to which
it is attached;

x is an integer of at least 2; and

y is an integer.

21 could
-- 18.(Amended) A modified nucleotide compound of claim 1 which includes at
least one sequence of the formula $[M(N)_x B] (N)_y M(N)_x B$ wherein B is modified or unmodified
2',3'-dideoxyribose nucleotide.

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-- 19.(Amended) A modified nucleotide of claim 1 wherein [x] y is an integer
selected from the group consisting of 2 or 3.

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-- 21. (Thrice Amended) A method of inhibiting the function of an RNA, which
comprises: contacting said RNA, under conditions permissive of hybridization, with a modified
nucleotide compound which includes at least one complimentary component selected from the
group consisting of MN_3M , $[B(N)_x M$ and $M(N)_x B]$ $(N)_x M(N)_y$, $(N)_x M(N)_y M$, $B(N)_x M(N)_y$ and
 $(N)_x M(N)_y B$ wherein:

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N is a phosphodiester-linked modified or unmodified 2'-deoxynucleoside moiety; provided that at least one N is a phosphodiester-linked unmodified 2' deoxynucleoside moiety;

M is a moiety that confers endonuclease resistance on said component and that contains at least one modified or unmodified nucleic acid base;

B is a moiety that confers exonuclease resistance to the terminus to which it is attached;

x is an integer of at least 2; and

y is an integer.

-- 37.(Amended) The method of claim 1 wherein the RNA is contacted with a

compound which includes at least one sequence of the formula $[M(N)_x B] (N)_y M(N)_x B$ wherein B is modified or unmodified 2', 3'-dideoxyribose nucleotide.

-- 41(Amended) A method of treating a human or animal so as to inhibit the

function of a target RNA therein which method comprises administering a therapeutically effective amount of a modified nucleotide compound so as to inhibit the function of the target RNA, which modified nucleotide compound includes at least one component selected from the group consisting of MN_3M , $[B(N)_x M$ and $M(N)_x B]$ $(N)_x M(N)_y$, $(N)_x M(N)_y M$, $B(N)_x M(N)_y$ and $(N)_x M(N)_y B$; wherein N is a phosphodiester- linked modified or unmodified 2'-deoxynucleoside

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moiety, M is a moiety that confers endonuclease resistance on said component and that contains at least one modified or unmodified nucleic acid base, B is a moiety that confers exonuclease resistance to the terminus to which it is attached [and] , x is an integer of at least 2 , and y is an integer.

45 *Amended*
-- 42 (Twice Amended) A compound containing at least [1] 2 separate nuclease [exonuclease and endonuclease] resistant [component] components each consisting of 2 or more contiguous phosphodiester- linked 2' deoxynucleosides; wherein at least one of said contiguous phosphodiester-linked 2' deoxynucleosides is unmodified.

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-- 50. (Twice Amended) A compound containing [an] at least two separate nuclease [endo- and exonuclease] resistant [sequence] sequences which [consists] consist of 2 or 3 contiguous phosphodiester-linked 2'- deoxynucleosides; wherein at least one of said contiguous phosphodiester-linked 2' deoxynucleosides is unmodified. -

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--51 (Amended) A modified nucleotide compound which comprises at least one component selected from the group consisting of MN_3M , $[B(N)_xM \text{ and } M(N)_xB]$ $(N)_xM(N)_y$, $(N)_xM(N)_yM$, $B(N)_xM(N)_y$ and $(N)_xM(N)_yB$ wherein:

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N comprises a phosphodiester-linked modified 2'-deoxynucleoside moiety;